Figure 1: Cytotoxic T-cell Inducing Sequence

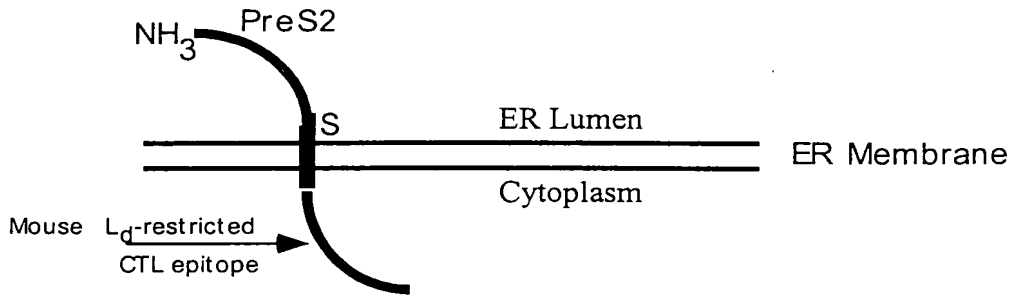

Figure 2: Addition of Heterologous Epitopes to Cytotoxic T-cell Inducing Sequence

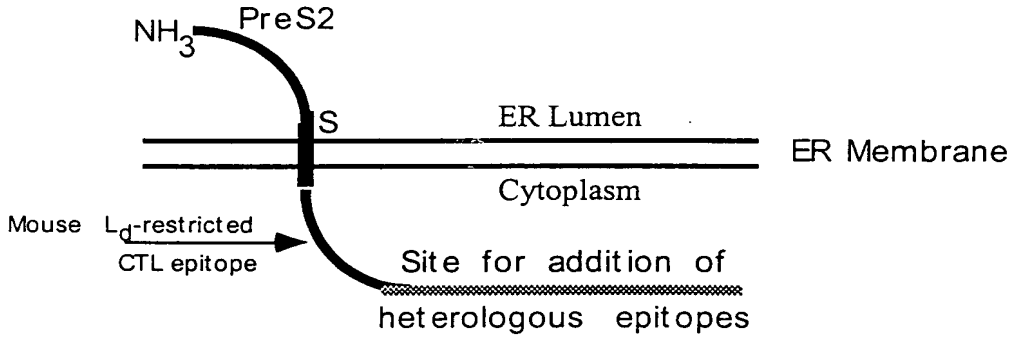

Figure 3

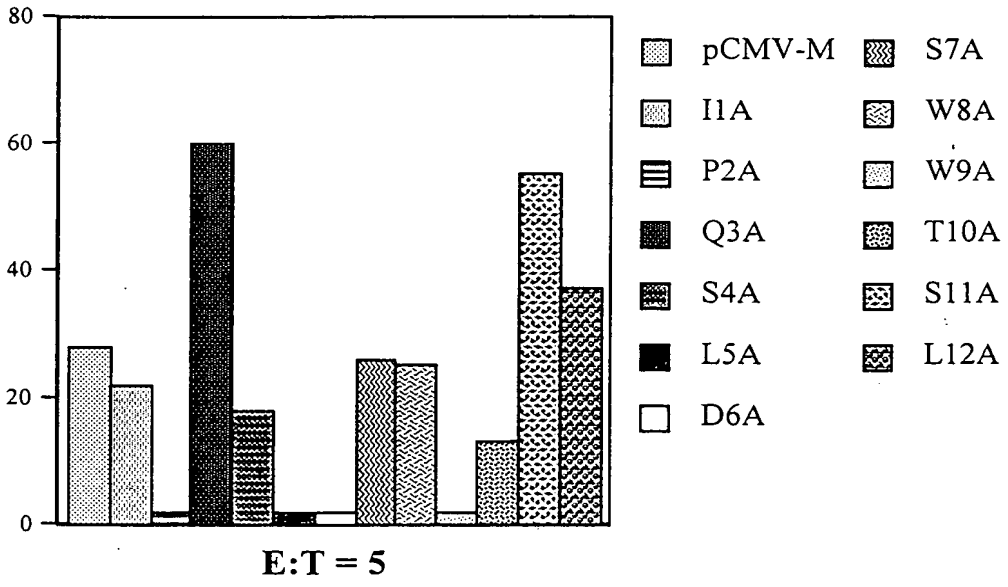

Figure 4: Method of preparing immunogenic agonist sequences (IAS)

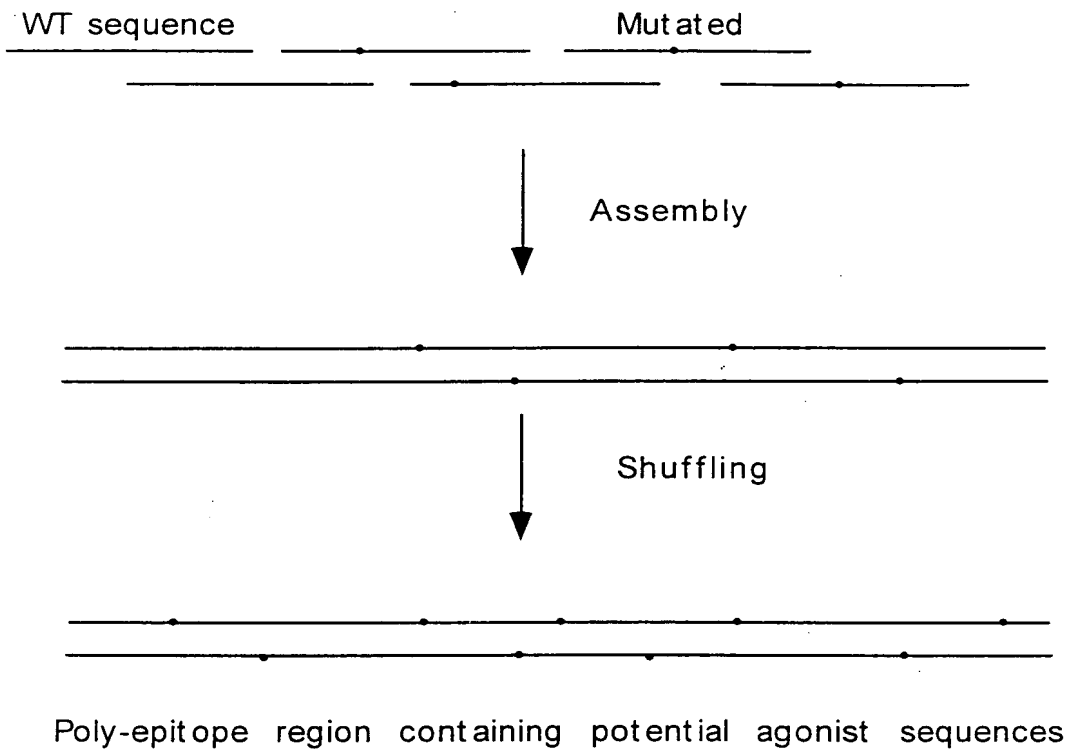

Figure 5

Improving immunostimulatory sequences (ISS) by DNA shuffling

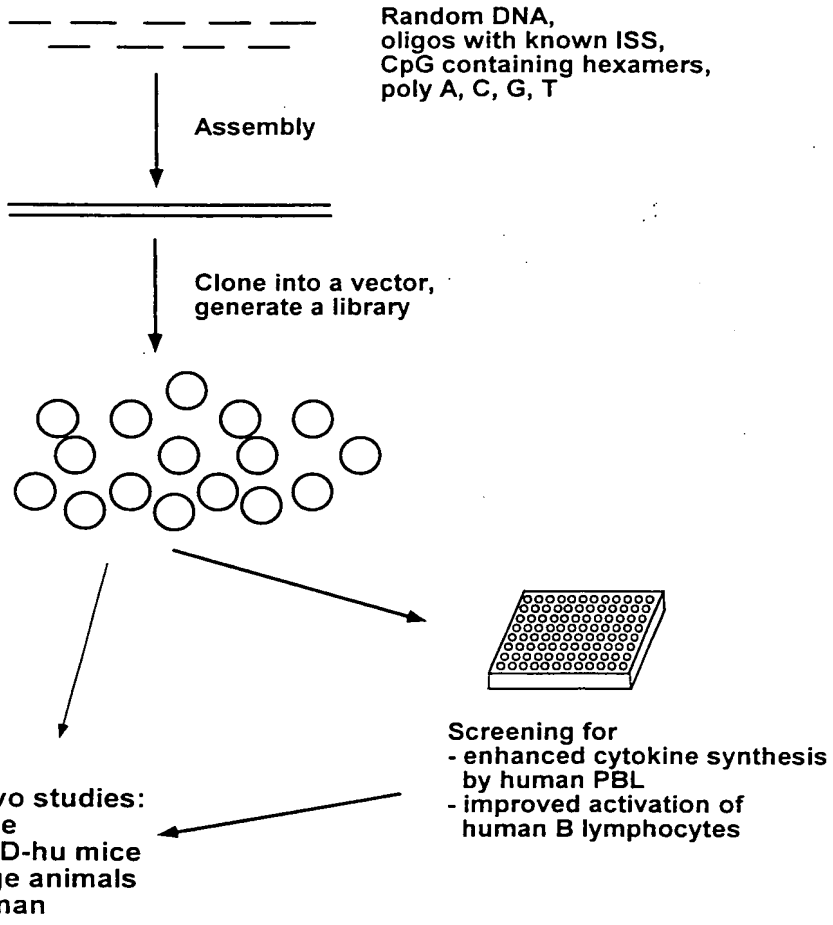

Figure 6: Screening of libraries of human IL-12 genes

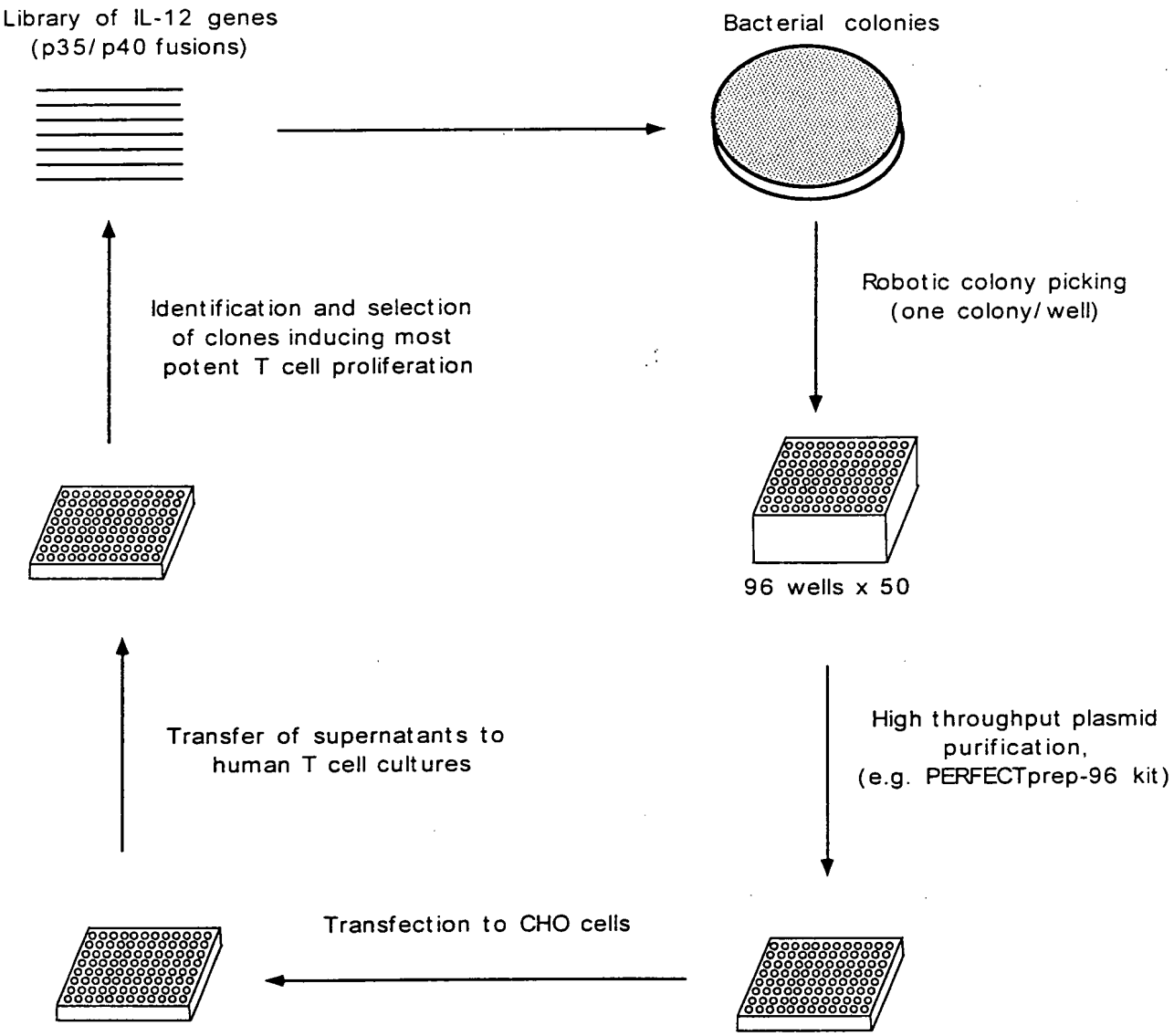

Figure 7

High Throughput Functional Assay for Vectors Encoding IL-12 Variants

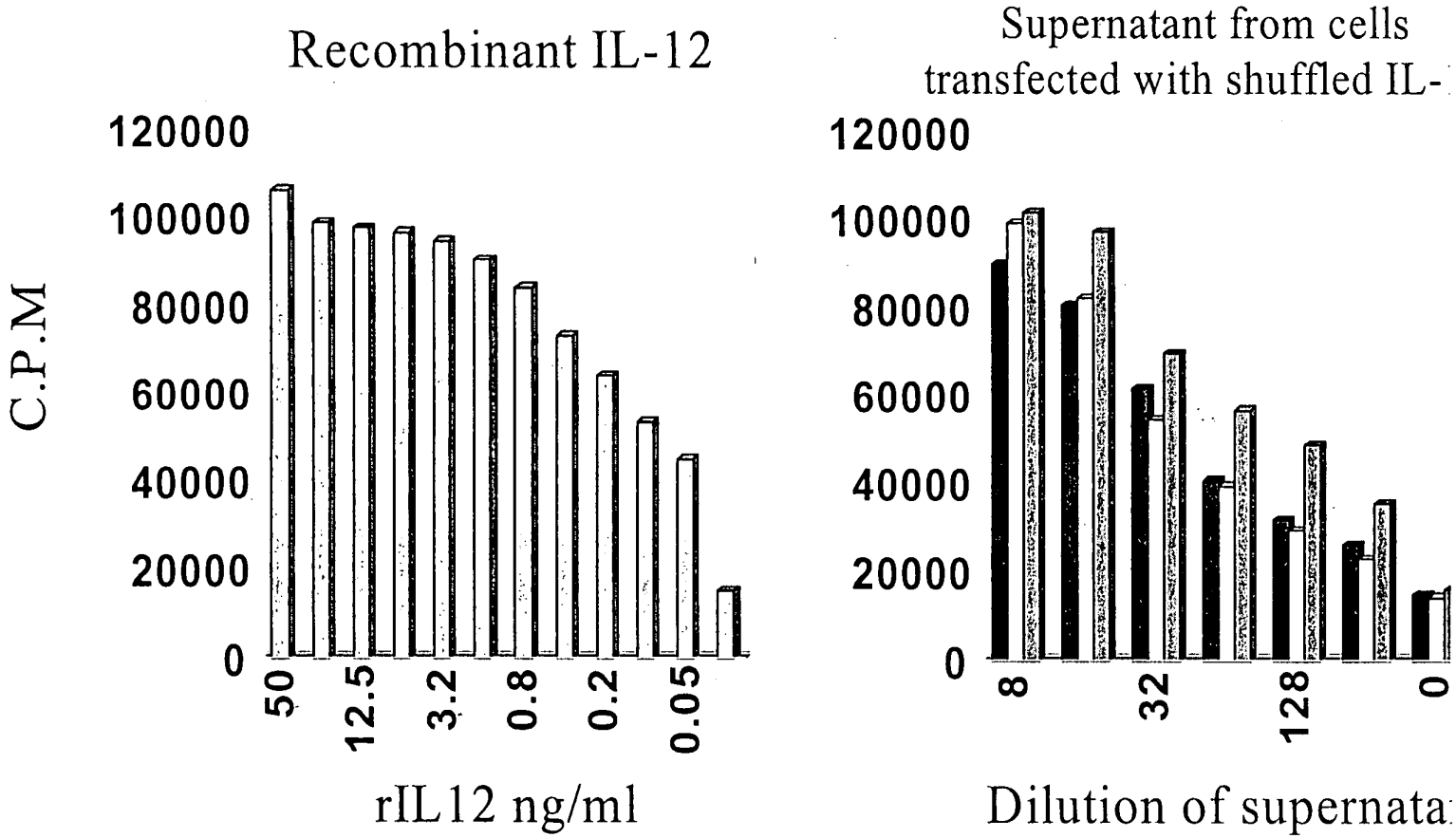

Figure 8

T cell Proliferation Induced by Individuall Transfected Vectors Encoding IL-12

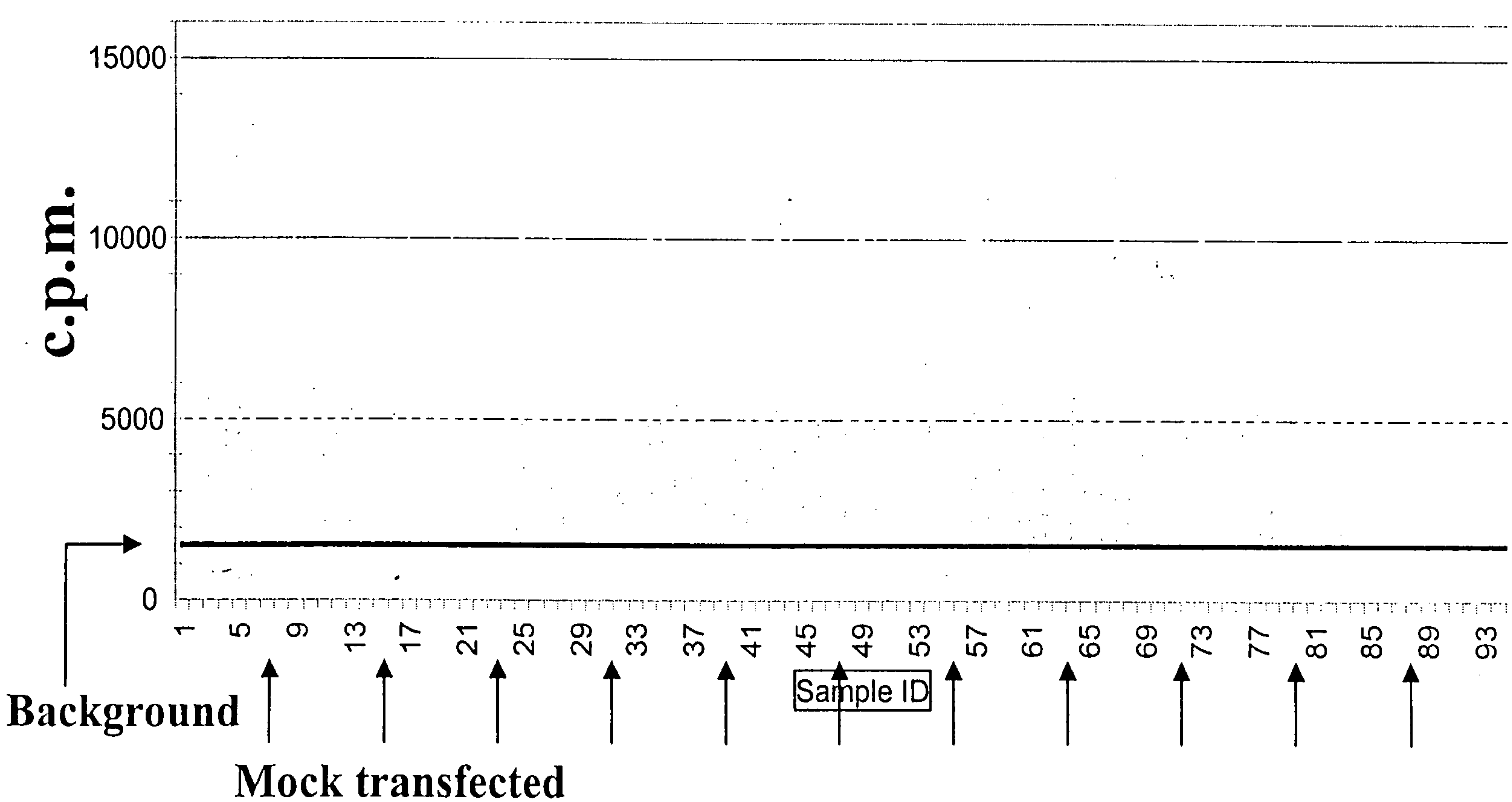

Figure 9

Vector with Shuffled IL-12 Chimera Provides Improved Human T cell activation

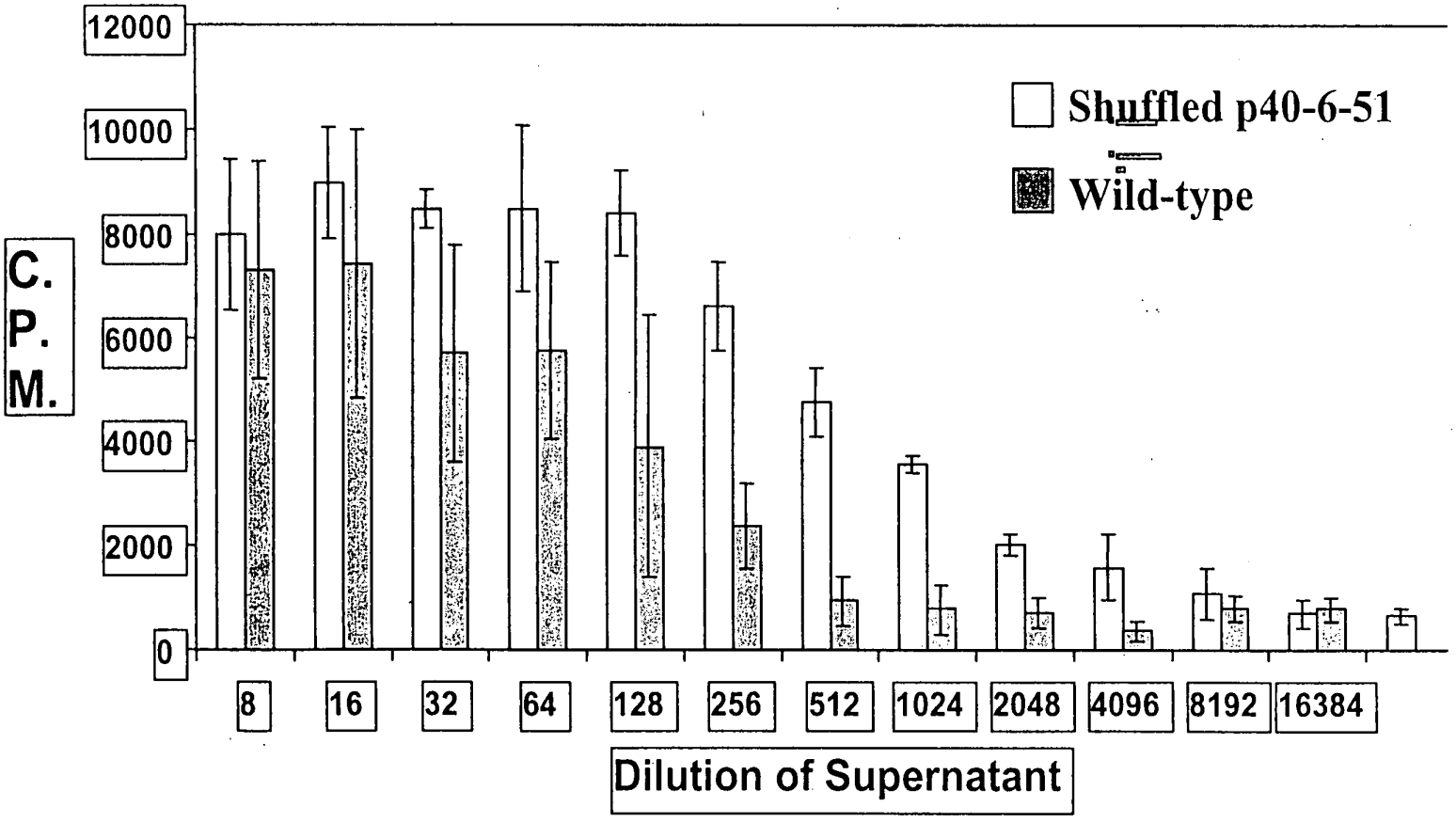

Figure 10

Model of induction of T cell activation or anergy by genetic vaccine vectors encoding different CD80 and/or CD86 variants

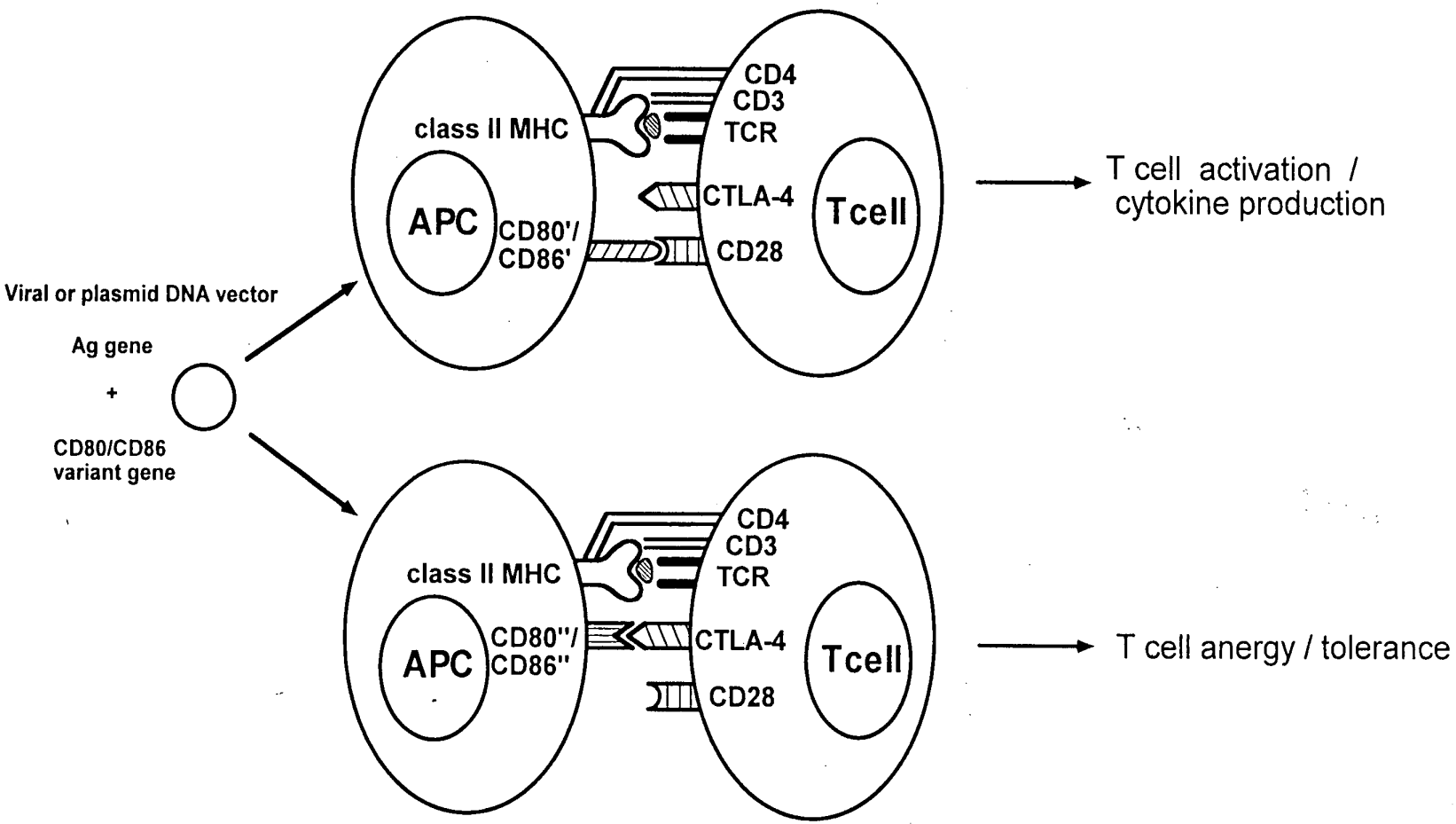

Figure 11

Screening of CD80/CD86 variants that have improved capacity to induce T cell activation or anergy

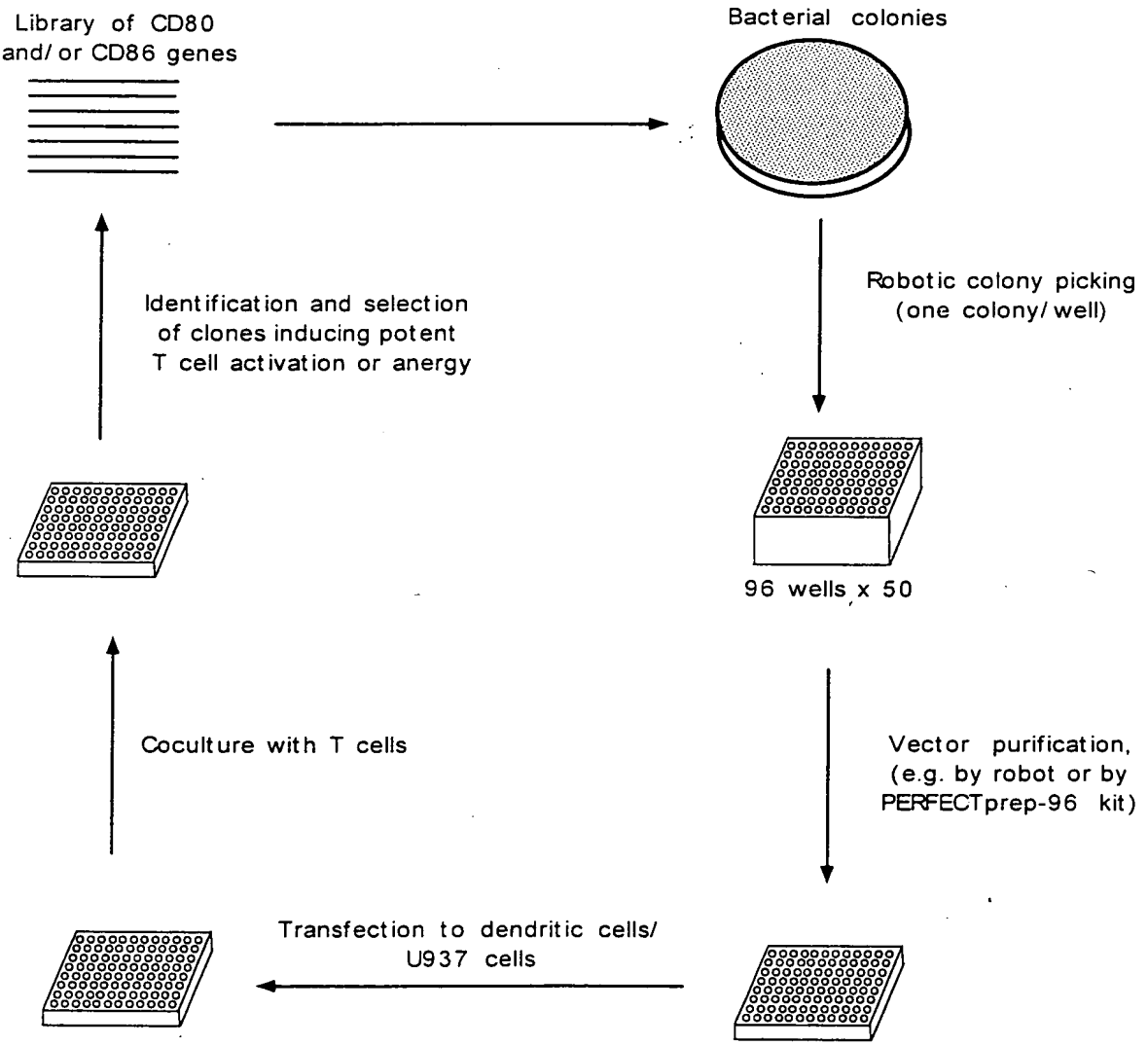

Figure 12

Screening Assay for Altered Function of B7

Proliferation of human peripheral blood T cells in response to anti-CD3 mAbs and COS-7 cells transfected with B7-1

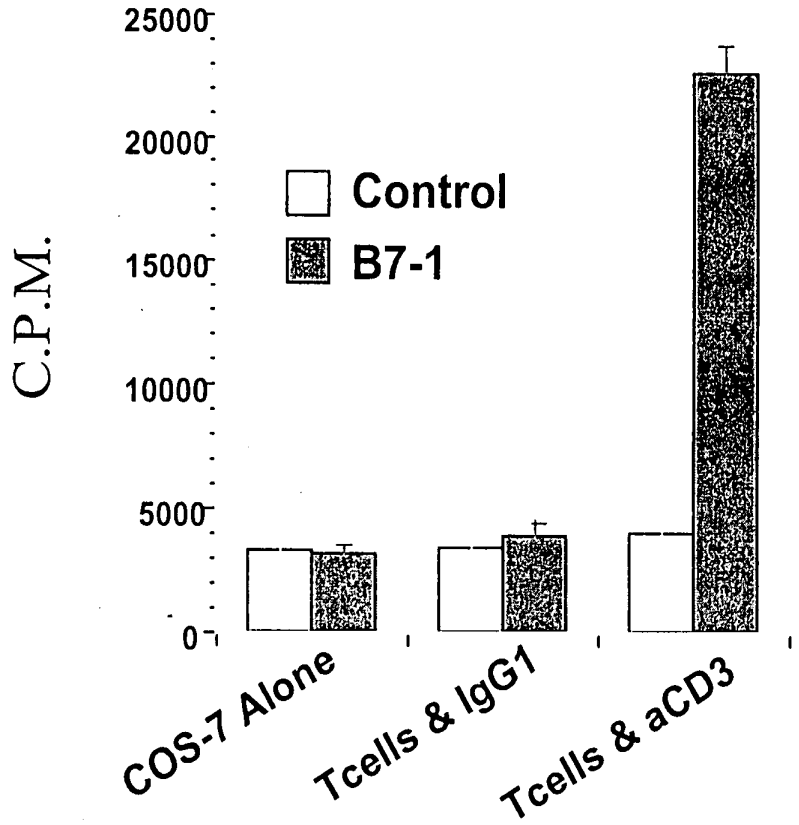

Figure 13

Shuffled B7-1 Chimeras Provide Potent T cell Activation

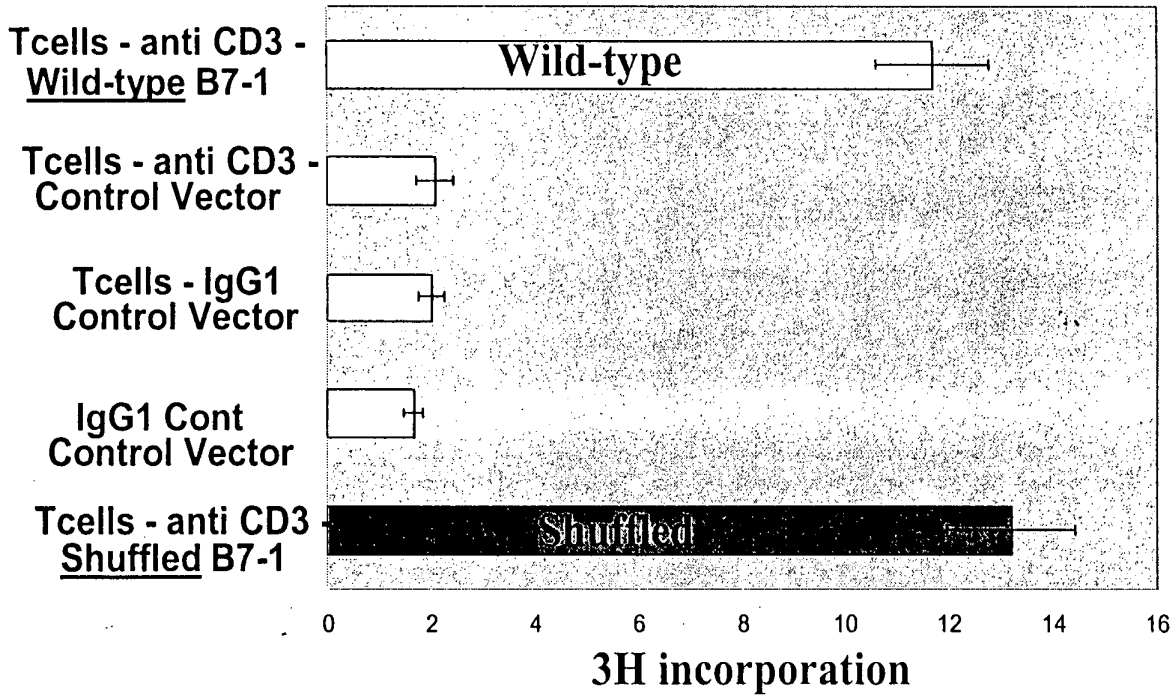

Figure 14: Alignment of human and mouse IL-10 receptor sequences illustrating the feasibility of family shuffling when evolving IL-10 antagonists.

```
                 1                                                          60
  IL-10R_DNA-seq AAA..GAGCTGGA......GGCGCGCAGGCCGGCTCCGCT....CCGGCCCC...GGACG
Mouse_IL-10R_seq CCATTGTGCTGGAAAGCAGGACGCGCCGGCCGGAGGCGTAAAGGCCGGCTCCAGTGGACG

                 61                                                        120
  IL-10R_DNA-seq ATGCGGC...GCGCCCAGGATGCTGCCGTGCCTCGTAGTGCTGCTGGCGGCGCTCCTCAG
Mouse_IL-10R_seq ATGCCGCTGTGCGCCCAGGATGTTGTCGCGTTTGCTCCCATTCCTCGTCACGATCTCCAG

                 121                                                       180
  IL-10R_DNA-seq CCTCCGTCTTGGCTCAGACGCTCATGGGACAGAGCTGCCCAGCCCTCCGTCTGTGTGGTT
Mouse_IL-10R_seq CCTGAGCCTAGAATTCATTGCATACGGGACAGAACTGCCAAGCCCTTCCTATGTGTGGTT

                 181                                                       240
  IL-10R_DNA-seq TGAAGCAGAATTTTTCCACCACATCCTCCACTGGACACCCATCCCAAATCAGTCTGAAAG
Mouse_IL-10R_seq TGAAGCCAGATTTTTCCAGCACATCCTCCACTGGAAACCTATCCCAAACCAGTCTGAGAG

                 241                                                       300
  IL-10R_DNA-seq TACCTGCTATGAAGTGGCGCTCCTGAGGTATGGAATAGAGTCCTGGAACTCCATCTCCAA
Mouse_IL-10R_seq CACCTACTATGAAGTGGCCCTCAAACAGTACGGAAACTCAACCTGGAATGACATCCATAT

                 301                                                       360
  IL-10R_DNA-seq CTGTAG......CCAGACCCTGTCCTATGACCTTACCGCAGTGACCTTGGACCTGTACCA
Mouse_IL-10R_seq CTGTAGAAAGGCTCAGGCATTGTCCTGTGATCTCACAACGTTCACCCTGGATCTGTATCA

                 361                                                       420
  IL-10R_DNA-seq C...AGCAATGGCTACCGGGCCAGAGTGCGGGCTGTGGACGGCAGCCGGCACTCCAACTG
Mouse_IL-10R_seq CCGAAGCTATGGCTACCGGGCCAGAGTCCGGGCAGTGGACAACAGTCAGTACTCCAACTG

                 421                                                       480
  IL-10R_DNA-seq GACCGTCACCAACACCCGCTTCTCTGTGGATGAAGTGACTCTGACAGTTGGCAGTGTGAA
Mouse_IL-10R_seq GACCACCACTGAGACTCGCTTCACAGTGGATGAAGTGATTCTGACAGTGGATAGCGTGAC
```

Figure 14 (continued)

```
                481                                                     540
  IL-10R_DNA-seq  CCTAGAGATCCACAATGGCTTCATCCTCGGGAAGATTCAGCTACCCAGGCCCAAGATGGC
Mouse_IL-10R_seq  TCTGAAAGCAATGGACGGCATCATCTATGGGACAATCCATCCCCCCAGGCCCACGATAAC

                541                                                     600
  IL-10R_DNA-seq  CCCCGCGAATGACACATATGAAAGCATCTTCAGTCACTTCCGAGAGTATGAGATTGCCAT
Mouse_IL-10R_seq  CCCTGCAGGGGATGAGTACGAACAAGTCTTCAAGGATCTCCGAGTTTACAAGATTTCCAT

                601                                                     660
  IL-10R_DNA-seq  TCGCAAGGTGCCGGGAAACTTCACGTTCACACACAAGAAAGTAAAACATGAAAACTTCAG
Mouse_IL-10R_seq  CCGGAAGTTCTCAGAA...CTAAAGAATGCAACCAAGAGAGTGAAACAGGAAACCTTCAC

                661                                                     720
  IL-10R_DNA-seq  CCTCCTAACCTCTGGAGAAGTGGGAGAGTTCTGTGTCCAGGTGAAACCATCTGTCGCTTC
Mouse_IL-10R_seq  CCTCACGGTCCCCATAGGGGTGAGAAAGTTTTGTGTCAAGGTGCTGCCCCGCTTGGAATC

                721                                                     780
  IL-10R_DNA-seq  CCGAAGTAACAAGGGGATGTGGTCTAAAGAGGAGTGCATCTCCCTCAC..CAG.GCAGTA
Mouse_IL-10R_seq  CCGAATTAACAAGGCAGAGTGGTCGGAGGAGCAGTGTTTACTTATCACGACGGAGCAGTA

                781                                                     840
  IL-10R_DNA-seq  TTTCACCGTGACCAACGTCATCATCTTCTTTGCCTTTGTCCTGCTGCTCTCCGGAGCCCT
Mouse_IL-10R_seq  TTTCACTGTGACCAACCTGAGCATCTTAGTCATATCTATGCTGCTATTCTGTGGAATCCT

                841                                                     900
  IL-10R_DNA-seq  CGCCTACTGCCTGGCCCTCCAGCTGTATGTGCGGCGCCGAAAGAAGCTACCCAGTGTCCT
Mouse_IL-10R_seq  GGTCT...GTCTGGTTCTCCAGTGGTACATCCGGCACCCGGGGAAGTTGCCTACAGTCCT

                901                                                     960
  IL-10R_DNA-seq  GCTCTTCAAGAAGCCCAGCCCCTTCATCTTCATCAGCCAGCGTCCCTCCCCAGAGACCCA
Mouse_IL-10R_seq  GGTCTTCAAGAAGCCTCACGACTTCTTCCCAGCCAACC..C.TCTCTGCCCAGAAACTCC

                961                                                    1020
  IL-10R_DNA-seq  AGACACCATCCACCCGCTTGATGAGGAGGCCTTTTTGAAGGTGTCCCCAGAGCTGAAGAA
Mouse_IL-10R_seq  CGATGCCATTCACATCGTGGACCTGGAGGTTTTCCCAAAGGTGTCACTAGAGCTGAGAGA
```

Figure 14 (continued)

```
                1021                                                1080
  IL-10R_DNA-seq  CTTGGACCTGCACGGCAGCACAGACAGTGGCTTTGGCAGCACCAAGCCATCCCTGCAGAC
Mouse_IL-10R_seq  CTCAGTCCTGCATGGCAGCACCGACAGTGGCTTTGGCAGTGGTAAACCATCACTTCAGAC

                1081                                                1140
  IL-10R_DNA-seq  TGAAGAGCCCCAGTTCCTCCTCCCTGACCCTCACCCCCAGGCTGACAGAACGCTGGGAAA
Mouse_IL-10R_seq  TGAAGAGTCCCAATTCCTCCTCCCTGGCTCCCACCCCCAGATACAGGGGACTCTGGGAAA

                1141                                                1200
  IL-10R_DNA-seq  CGGGGAGCCCCCTGTGCTGGGGGACAGCTGCAGTAGTGGCAGCAGCAATAGCACAGACAG
Mouse_IL-10R_seq  AGAAGAGTCTCCAGGGCTACAGGCCACCTGTGG....GG........ACAACACGGACAG

                1201                                                1260
  IL-10R_DNA-seq  CGGGATCTGCCTGCAGGAGCCCAGCCTGAGCCCCAGCACAGGGCCCACCTGGGAGCAACA
Mouse_IL-10R_seq  TGGGATCTGCCTGCAGGAGCCCGGCTTACACTCCAGCATGGGGCCCGCCTGGAAGCAGCA

                1261                                                1320
  IL-10R_DNA-seq  GGTGGGGAGCAACAGCAGGGGCCAGGATGACAGTGGCATTGACTTAGTTCAAAACTCTGA
Mouse_IL-10R_seq  GCTTGGATATACCCATCAGGACCAGGATGACAGTGACGTTAACCTAGTCCAGAACTCTCC

                1321                                                1380
  IL-10R_DNA-seq  GGGCCGGGCTGGGGACACACAGGGTGGCTCGGCCTTGGGCCACCACAGTCCCCCGGAGCC
Mouse_IL-10R_seq  AGGGCAGCCTAAGTACACACAGGATGCATCTGCCTTGGGCCATGTCTGTCTCCTAGAACC

                1381                                                1440
  IL-10R_DNA-seq  TGAGGTGCCTGGGGAAGAAGACCCAGCTGCTGTGGCATTCCAGGGTTACCTGAGGCAGAC
Mouse_IL-10R_seq  TAAAGCCCCTGAGGAGAAAGACCAAGTCATGGTGACATTCCAGGGCTACCAGAAACAGAC

                1441                                                1500
  IL-10R_DNA-seq  CAGATGTGCTGAAGAGAAGGCAACCAAGACAGGCTGCCTGGAGGAAGAATCGCCCTTGAC
Mouse_IL-10R_seq  CAGATGGAAGGCAGAGGCAGCAGGCCCAGCAGAATGCTTGGACGAAGAGATTCCCTTGAC

                1501                                                1560
  IL-10R_DNA-seq  AGATGGCCTTGGCCCCAAATTCGGGAGATGCCTGGTTGATGAGGCAGGCTTGCATCCACC
Mouse_IL-10R_seq  AGATGCCTTTGATCCTGAACTTGGGGTACACCTGCAGGATGATTTGGCTTGGCCTCCACC
```

Figure 14 (continued)

```
                  1561                                                1620
  IL-10R_DNA-seq  AGCCCTGGCCAAGGGCTATTTGAAACAGGATCCTCTAGAAATGACTCTGGCTTCCTCAGG
Mouse_IL-10R_seq  AGCTCTGGCCGCAGGTTATTTGAAACAGGAGTCTCAAGGGATGGCTTCTGCTCCACCAGG

                  1621                                                1680
  IL-10R_DNA-seq  GGCCCCAACGGGACAGTGGAACCAGCCCACTGAGGAATGGTCACTCCTGGCCTTGAGCAG
Mouse_IL-10R_seq  GACACCAAGTAGACAGTGGAATCAACTGACCGAAGAGTGGTCACTCCTGGGTGTGGTTAG

                  1681                                                1740
  IL-10R_DNA-seq  CTGCAGTGACCTGGGAATATCTGACTGGAGCTTTGCCCATGACCTTGCCCCTCTAGGCTG
Mouse_IL-10R_seq  CTGTGAAGATCTAAGCATAGAAAGTTGGAGGTTTGCCCATAAACTTGACCCTCTGGACTG

                  1741                                                1800
  IL-10R_DNA-seq  TGTGGCAGCCCCAGGTGGTCTCCTGGGCAGCTTTAACTCAGACCTGGTCACCCTGCCCCT
Mouse_IL-10R_seq  TGGGGCAGCCCCTGGTGGCCTCCTGGATAGCCTTGGCTCTAACCTGGTCACCCTGCCGTT

                  1801                                                1860
  IL-10R_DNA-seq  CATCTCTAGCCTGCAGTCAAGTGAGTGACTCGGGCTGAGAGGCTGCTTTTGATTTTAGCC
Mouse_IL-10R_seq  GATCTCCAGCCTGCAGGTAGAAGAATGACAGCGGCTAAGAG.TTATTTGT.ATTCCAGCC

                  1861                                                1920
  IL-10R_DNA-seq  ATGCCTGCTCCTCTGCCTGGACCAGGAGGAGGGCCCTGGGGCAGAAGTTAGGCACGAGGC
Mouse_IL-10R_seq  ATGCCTGCTCCCCTCCCTGTACCTGG..GAGG...CT....CAGGAGTCAAA...GAAAT

                  1921                                                1980
  IL-10R_DNA-seq  AGTCTGGGCACTTTTCTGCAAGTCCACTGGGGCTGGCCCAGCCAGGCTGCAGGGCTGGTC
Mouse_IL-10R_seq  A.TGTGGGTCCTTTTCTGCAGACCTACTGTGACCAGCT.AGCCAGGCTCCA.........

                  1981                                                2040
  IL-10R_DNA-seq  AGGGTGTCTGGGGCAGGAGGAGGCCAACTCACTGAACTAGTGCAGGGTATGTGGGTGGCA
Mouse_IL-10R_seq  ........CGGGGCAAGGAAAGGCCATCTTGATACACGAGTGTCAGGTACATGAGAGGTT

                  2041                                                2100
  IL-10R_DNA-seq  CTGACCTGTTCTGTTGACTGGGGCCCTGCAGACTCTGGCAGAGCTGAGAAGGG....CAG
Mouse_IL-10R_seq  GTGGC.TAGTCTGCTGAGTGAGGGTCTGTAGATACCAGCAGAGCTGAGCAGGATTGACAG
```

Figure 14 (continued)

```
                  2101                                                        2160
   IL-10R_DNA-seq GGACCTTCTCCCTCCTAGGAACTCTTTCCTGTATCATAAAGGATTATTTGCTCAGGGG.A
Mouse_IL-10R_seq  AGACCTCCTCATGCCTCAGGGCTGGCTCCTACACTG.GAAGGACC.TGTGTTTGGGTGTA

                  2161                                                        2220
   IL-10R_DNA-seq ACCATGGGGCTTTCTGGAGTTGTGGTGAGGCCACCAGGCTGAAGTCAGCTCAGACCCAGA
Mouse_IL-10R_seq  ACCTCAGGGCTTTCTGGA..TGTGGTAAGACTGTAGGTCTGAAGTCAGCTGAG.CCTGGA

                  2221                                                        2280
   IL-10R_DNA-seq CCTCCCTGCTTAGGCCACTCGAGCATCAGAGCTTCCAGCAGGAGGAAGGGCTGTAGGAAT
Mouse_IL-10R_seq  ..TGTCTGCGGAGGT.GTTGGAGTGGCT.AGCCTGCTACAGGATAAAGGG..........

                  2281                                                        2340
   IL-10R_DNA-seq GGAAGCTTCAGGGCCTTGCTGCTGGGGTCATTTTTAGGGGAAAAAGGAGGATATGATGGT
Mouse_IL-10R_seq  ..AAGGCTCAAGA....GATAGAAGGGC........AGAGCATGAGCCAGGTTTAATTTT

                  2341                                                        2400
   IL-10R_DNA-seq CACATGGGGAACCTCCCCTCATCGGGCCTCTGGGGCAGGAAGCTTGTCACTGGAAGATCT
Mouse_IL-10R_seq  GTCCTGTAGAGATGGTCCCCA....GCC...AGGATGGGTTACTTGTGGCTGGGAGATCT

                  2401                                                        2460
   IL-10R_DNA-seq TAAGGTATATATT.TTCTGGACACTCAAACACATCATAATGGATTCACTGAGGGGAGACA
Mouse_IL-10R_seq  TGGGGTATACACCACCCTGAATGATCAGCCA.GTCA......ATTCAGAGCTGTGTGGCA

                  2461                                                        2520
   IL-10R_DNA-seq AAGGGAGCCGAGACCCTGGATGGGGCTTCCAGCTCAGAACCCATCCCTCTGGTG.GGTAC
Mouse_IL-10R_seq  AAAGGGACTGAGACCCAGAAT.....TTCTG............TTCCTCTTGTGAGGTGT

                  2521                                                        2580
   IL-10R_DNA-seq CTCTGGCACCCATCTGCAAATATCTCCCTCTCTCCAACAAATGGAGTAGCATCCCCCTGG
Mouse_IL-10R_seq  CTCTGCTACCCATCTGCAGACAGACATCTTCATCTTTTTACTATGGCTGTGTCCCC.TGA

                  2581                                                        2640
   IL-10R_DNA-seq GGCACTTGCTGAGGCCAAGCCACTCACATCCTCACTTTGCTGCCCCACCATCTTGCTGAC
Mouse_IL-10R_seq  ATTACCAGCAGTGGCCAAGCCATT...ACTCCC....TGCTGCTC.ACTGTTGTGACGTC
```

Figure 14 (continued)

```
                2641                                                2700
  IL-10R_DNA-seq  AACTTCCAGAGAAGCCATGGTTT.TTTGTATTGGTCATAACTCAGCCCTTTGGGCGGCCT
Mouse_IL-10R_seq  AGA..CCAGACCAGACGCTGTCTGTCTGTGTTAGT....ACACTACCCTTTAGGTGGCCT

                2701                                                2760
  IL-10R_DNA-seq  CTGGGCTTGGGCACCAGCTCATGCCAGCCCCAGAGGGTCAGGGTTGGAGGCCTGTGCTTG
Mouse_IL-10R_seq  TTGGGCTTGAGCACTGGCCCA..................GGCTTAGGACTTATGTCTG

                2761                                                2820
  IL-10R_DNA-seq  TGTTTGCTGCTAATGTCCAGCTACAGACCCAGAGGATAAGCCACTGGGC.ACTGGGCTGG
Mouse_IL-10R_seq  CTTTTGCTGCTAATCTCTAACTGCAGACCCAGAGAACAGGGTGCTGGGCTGACACCTCCG

                2821                                                2880
  IL-10R_DNA-seq  GGTCC..CTGCCTTGTTGGTGTTCAGCTGTGTGATTTTGG.ACTAGC.CACTTGTCAGAG
Mouse_IL-10R_seq  TGTTCAGCTGTGTGACCTCCGACCAGCAGCTTCCTCAGGGGACTAAAATAATGACTAGGT

                2881                                                2940
  IL-10R_DNA-seq  GGCCTCAATCTCCCATCTGTGAAATAAGGACTC...CACCTTTAGGG.GACCCTCCATGT
Mouse_IL-10R_seq  CATTCAGAAGTCCCTCATGCTGAATGTTAACCAAGGTGCCCCTGGGGTGATAGTTTAGGT

                2941                                                3000
  IL-10R_DNA-seq  TTGCTGGGTATTAGCCAAGCTGGTCCTGGGAGAATGCAGATACTGTCCGTGGACTACCAA
Mouse_IL-10R_seq  CCTGCAACCTCTGGGTTGGAAGGA...AGTGGACTACGGAAGCCATCTGT...CCCCCTG

                3001                                                3060
  IL-10R_DNA-seq  GCTGGCTTGTTTCTTATGCCAGAGGCTAACAGATCCAATGGGAGTCCATGGTGTCATGCC
Mouse_IL-10R_seq  GGGAGCTTCCACCTCATGCCAGTGTTTCAGAGATCTTGTGGGAGCCTAGGGCCTTGTGCC

                3061                                                3120
  IL-10R_DNA-seq  AAGACAGTATCAGACACAGCCCCAGAAGGGGGCATTATGGGCCCTGCCTCCCCATAGGCC
Mouse_IL-10R_seq  AAGGGAGCTGC.....TAGTCCCTGGGGTCTAGGGC.TGGTCCCTGCCTCCCTATACTGC

                3121                                                3180
  IL-10R_DNA-seq  ATTTGGACTCTGCCTTCAAACAAAGGCAGTT..CAGTCCACAGGCATGGAAGCTGTGAGG
Mouse_IL-10R_seq  GTTTGAGACCTGTCTTCAAATGGAGGCAGTTTGCAGCCCCTAAGCAAGGATGCTGAGAGA
```

Figure 14 (continued)

```
                  3181                                                        3240
   IL-10R_DNA-seq GGACAGGCCTGTGCGTGCCATCCAGAGTCATCTCAGCCCTGCCTTTCTCTGGAGCATTCT
Mouse_IL-10R_seq  AG.CAG..CAAGGC.TGCT......GATC.CCTGAGCCCAGAGTTTCTCTGAAGCTTTCC

                  3241                                                        3300
   IL-10R_DNA-seq GAAAACAGATATTCTGGCCCAGGGAATCCAGCCATGACCCCCACCCCTCTGCCAAAGTAC
Mouse_IL-10R_seq  AAATACAGACTGTGTGACGGGGTGAGGCCAGCCATGAACTTTGGCATCCTGCCGAGAAGG

                  3301                                                        3360
   IL-10R_DNA-seq TCTTAGGTGCCAGTCTGGTAACTGAACTCCCTCTGGAGGCAGGCTTGAGGGAGGATTCCT
Mouse_IL-10R_seq  TCAT.GACCCTAATCTGGTACGAGAGCTCCTTCTGGAACTGGGC........AAGCTCTT

                  3361                                                        3420
   IL-10R_DNA-seq CAGGGTTCCCTTGAAAGCTTTATTTATTTATTTTGTTCATTTATTTATTGGAGAGGCAGC
Mouse_IL-10R_seq  TGAGACCCCCCTGGAACCTTTATTTATTTATTT.GCTCACTTATTTATTGAGGAAGCAGC

                  3421                                                        3480
   IL-10R_DNA-seq ATTGCACAGTGAAAGAATTCTGGATATCTCAGGAGCCCCGAAATTCTAGCTCTGACTTTG
Mouse_IL-10R_seq  GTGGCACAGGCGCAAGGCTCTGGGTCTCTCAGGAGG........TCTAGATTTGCCTGCC

                  3481                                                        3540
   IL-10R_DNA-seq CTGTTTCCAGTGGTATGACCTTGGAGAAGTCACTTATCCTCTTGGAGCCTCAGTTTCCTC
Mouse_IL-10R_seq  CTGTTTCTAGCTGTGTGACCTTGGGCAAGTCACGTTTCCTCGTGGAGCCTCAGTTTTCCT

                  3541                                                        3600
   IL-10R_DNA-seq ATCTGCA..........GAATAATGA.......CTGACTTGTCTAATTCATAGGGATGTG
Mouse_IL-10R_seq  GTCTGTATGCAAAGCTTGGAAATTGAAATGTACCTGACGTGCTCCATCCCTAGGAGTGCT

                  3601                                                        3660
   IL-10R_DNA-seq AGGTTCTGCTGAGGAAATGGGTATGAATGTGCCTTGAACACAAAGCTCTGTCAATAAGTG
Mouse_IL-10R_seq  GAGTCCCACTGAGAAAGCGGGCACAGACG..CCTCAAATGGAA........CCACAAGTG
```

Figure 14 (continued)

```
                3661                                                  3703
  IL-10R_DNA-seq  ATACATGTTTTTTATTCCAATAAATTGTCAAG.ACCAC....A
Mouse_IL-10R_seq  GTGTGTGTTTTC.ATCCTAATAAAAAGTCAGGTGTTTTGTGGA
```

Figure 15: Alignment of human, rhesus monkey and rabbit DNA sequences of B7-1 molecules (CD80) illustrating the feasibility of family shuffling.

```
                          1                                                           60
       B7-1,_human_seq    ATGGGCCACACACGGAGGCAGGGAACATCACCATCCAAGTGTCCATACCTCAATTTCTTT
B7-1,_rhesus_monkey_seq   ATGGGCCACACACGGAGGCAGGAAATATCACCATCCAAGTGTCCATACCTCAAGTTCTTT
      B7-1,_rabbit_seq    ATGGGCCACACGCTGAGGCCGGGAACTCCACTGCCCAGGTGTCTACACCTCAAGCTCTGC

                          61                                                         120
       B7-1,_human_seq    CAGCTCTTGGTGCTGGCTGGTCTTTCTCACTTCTGTTCAGGTGTTATCCACGTGACCAAG
B7-1,_rhesus_monkey_seq   CAGCTCTTGGTGCTGGCTTGTCTTTCTCATTTCTGTTCAGGTGTTATCCACGTGACCAAG
      B7-1,_rabbit_seq    CTGCTCTTGGCGCTGGCGGGTCT...CCACTTCTCTTCAGGTATCAGCCAGGTCACCAAG

                          121                                                        180
       B7-1,_human_seq    GAAGTGAAAGAAGTGGCAACGCTGTCCTGTGGTCACAATGTTTCTGTTGAAGAGCTGGCA
B7-1,_rhesus_monkey_seq   GAAGTGAAAGAAGTGGCAACGCTGTCCTGTGGTCACAATGTTTCTGTTGAAGAGCTGGCA
      B7-1,_rabbit_seq    TCGGTGAAAGAAATGGCAGCACTGTCCTGTGATTACAACATTTCTATCGATGAACTGGCG

                          181                                                        240
       B7-1,_human_seq    CAAACTCGCATCTACTGGCAAAAGGAGAAGAAAATGGTGCTGACTATGATGTCTGGGGAC
B7-1,_rhesus_monkey_seq   CAAACTCGCATCTACTGGCAAAAGGAGAAGAAAATGGTGCTGACTATGATGTCTGGGGAC
      B7-1,_rabbit_seq    AGAATGCGCATATACTGGCAGAAGGACCAACAGATGGTGCTGAGCATCATCTCTGGGCAA

                          241                                                        300
       B7-1,_human_seq    ATGAATATATGGCCCGAGTACAAGAACCGGACCATCTTTGATATCACTAATAACCTCTCC
B7-1,_rhesus_monkey_seq   ATGAATATATGGCCCGAGTACAAGAACCGGACCATCTTTGATATCACAAATAACCTCTCC
      B7-1,_rabbit_seq    GTGGAAGTGTGGCCTGAGTACAAGAACCGCACCTTCCCCGACATCATTAACAACCTCTCC

                          301                                                        360
       B7-1,_human_seq    ATTGTGATCCTGGCTCTGCGCCCATCTGACGAGGGCACATACGAGTGTGTTGTTCTGAAG
B7-1,_rhesus_monkey_seq   ATTGTGATTCTGGCTCTGCGCCCATCTGACGAGGGCACATACGAGTGTGTTGTTCTGAAG
      B7-1,_rabbit_seq    CTTATGATCCTGGCACTGCGCCTGTCGGACAAGGGCACCTACACCTGCGTGGTTCAGAAG
```

Figure 15 (continued)

```
                         361                                                        420
       B7-1,_human_seq   TATGAAAAAGACGCTTTCAAGCGGGAACACCTGGCTGAAGTGACGTTATCAGTCAAAGCT
B7-1,_rhesus_monkey_seq  TATGAAAAAGATGCTTTCAAGCGGGAACACCTGGCTGAAGTGATGTTATCCGTCAAAGCT
      B7-1,_rabbit_seq   AATGAGAACGGGTCTTTCAGACGGGAGCACCTGACCTCCGTGACACTGTCCATCAGAGCT

                         421                                                        480
       B7-1,_human_seq   GACTTCCCTACACCTAGTATATCTGACTTTGAAATTCCAACTTCTAATATTAGAAGGATA
B7-1,_rhesus_monkey_seq  GACTTCCCTACACCTAGTATAACTGACTCTGAAATTCCACCTTCTAACATTAGAAGGATA
      B7-1,_rabbit_seq   GACTTCCCTGTCCCTAGCATAACTGACATTGGACATCCCGACCCTAATGTGAAAAGGATA

                         481                                                        540
       B7-1,_human_seq   ATTTGCTCAACCTCTGGAGGTTTTCCAGAGCCTCACCTCTCCTGGTTGGAAAATGGAGAA
B7-1,_rhesus_monkey_seq  ATTTGCTCAAACTCTGGAGGTTTTCCAGAGCCTCACCTCTCCTGGTTGGAAAATGGAGAA
      B7-1,_rabbit_seq   AGATGCTCCGCCTCTGGAGGTTTTCCAGAGCCTCGCCTCGCCTGGATGGAAGATGGAGAA

                         541                                                        600
       B7-1,_human_seq   GAATTAAATGCCATCAACACAACAGTTTCCCAAGATCCTGAAACTGAGCTCTATGCTGTT
B7-1,_rhesus_monkey_seq  GAATTAAATGCCATCAGCACAACAGTTTCCCAAGATCCTGAAACTGAGCTCTATACTGTT
      B7-1,_rabbit_seq   GAACTAAACGCCGTCAACACGACGGTTGACCAGGATTTGGACACGGAGCTCTACAGCGTC

                         601                                                        660
       B7-1,_human_seq   AGCAGCAAACTGGATTTCAATATGACAACCAACCACAGCTTCATGTGTCTCATCAAGTAT
B7-1,_rhesus_monkey_seq  AGCAGCAAACTGGATTTCAATATGACAACCAATCACAGTTTCATGTGTCTCATCAAGTAT
      B7-1,_rabbit_seq   AGCAGTGAACTGGATTTCAATGTGACAAATAACCACAGCATCGTGTGTCTCATCAAATAC

                         661                                                        720
       B7-1,_human_seq   GGACATTTAAGAGTGAATCAGACCTTCAACTGGAATACAACCAAGCAAGAGCATTTTCCT
B7-1,_rhesus_monkey_seq  GGACATTTAAGAGTGAATCAGACCTTCAACTGGAACACACCCAAGCAAGAGCATTTTCCT
      B7-1,_rabbit_seq   GGGGAGCTGTCGGTGTCACAGATCTTCCCTTGGAGCAAACCCAAGCAGGAGC...CTCCC

                         721                                                        780
       B7-1,_human_seq   GATAACCTGCTCCCATCCTGGGCCATTACCTTAAT.........CTCAGTAAATGGAATT
B7-1,_rhesus_monkey_seq  GATAACCTGCTCCCATCCTGGGCCATTATCCTAAT.........CTCAGTAAATGGAATT
      B7-1,_rabbit_seq   ATTGATCAGCTTCCATTCTGGGTCATTATCCCAGTAAGTGGTGCTTTGGTGCTCACTGCG
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Figure 15 (continued)

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                        781                                                 840
        B7-1,_human_seq TTTGTGATATGCTGCCTGACCTACTGCTTTGCCCCAAGATGCAGAGAGAGAAGGAGGAAT
B7-1,_rhesus_monkey_seq TTTGTGATATGCTGCCTGACCTACTGTTTTGCCCCAAGGTGCAGAGAGAGAAGAAGGAAT
       B7-1,_rabbit_seq GTAGTTCTCTACTGCCTGGCCTGCAGACATGTTGCGAGGTGGAAAAGAACAAGAAGGAAT

                        841                                                 900
        B7-1,_human_seq GA...GAGATTGAGAAGGGAAAGTGTACGCCCTGTATA.....................
B7-1,_rhesus_monkey_seq GA...GACATTGAGAAGGGAAAGTGTACGCCCTGTATG.....................
       B7-1,_rabbit_seq GAAGAGACAGTGGGAACTGAAAGGCTGTCCCCTATCTACTTAGGCTCTGCGCAATCCTCG

                        901     906
        B7-1,_human_seq .....A
B7-1,_rhesus_monkey_seq .....A
       B7-1,_rabbit_seq GGCTGA
```